



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

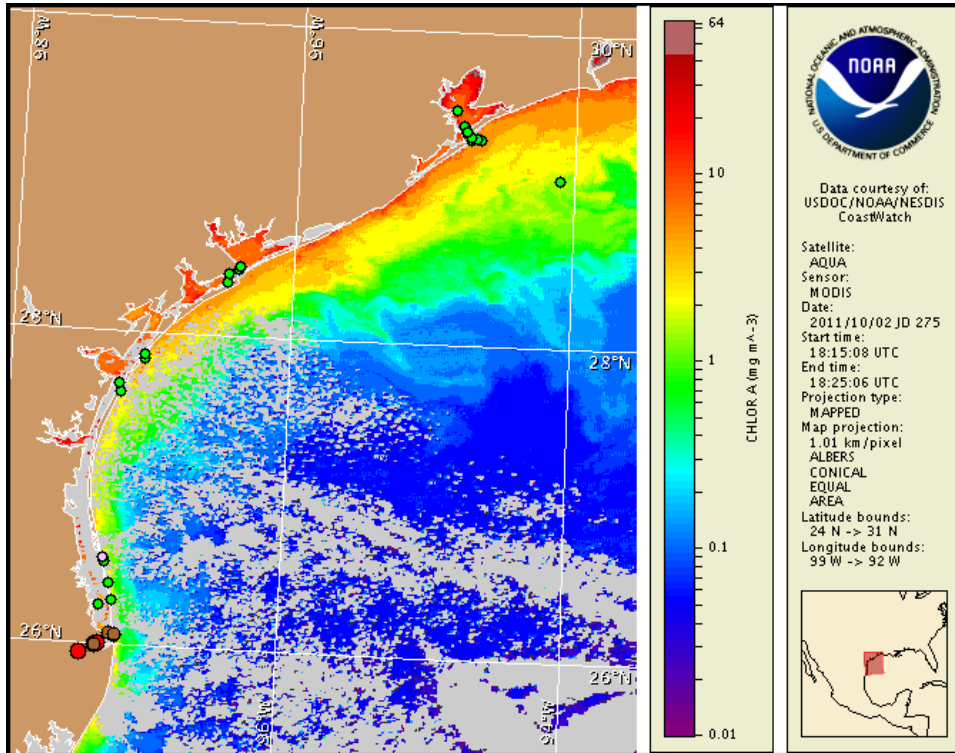
Monday, 03 October 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 29, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from September 23 to 29 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A harmful algal bloom continues to be present along the Texas coast in the Galveston/Freeport area and also along the Texas coast in the South Padre Island region, within the Brownsville Ship Channel area, and within the lower Laguna Madre. Patchy moderate impacts are possible in the Galveston region today through Wednesday. Patchy low impacts are possible along the southern end of South Padre Island and within the lower Laguna Madre, with patchy high impacts possible within the Brownsville Ship Channel area, today through Wednesday. No impacts are expected elsewhere alongshore Texas today through Wednesday, October 5. Reports of respiratory irritation have been received from the Galveston Beach region. Dead fish have been reported from the Intracoastal Waterway at the San Bernard River.

Analysis

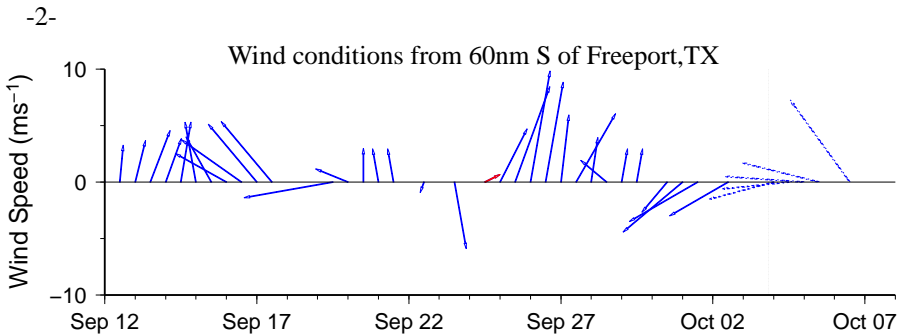
A harmful algal bloom continues to be present along the Texas coast in the Galveston/Freeport area and also along the Texas coast in the South Padre Island region, within the Brownsville Ship Channel area, and within the lower Laguna Madre. TPWD estimated that samples collected from Sargent Beach and Galveston indicate 'moderate' and 'low' concentrations of *Karenia brevis*, respectively (not displayed on map at left; 9/30). Estimates from samples collected from the Dow Barge Canal indicate that *K. brevis* remains at 'high' concentrations (not displayed on map at left 9/30; TPWD). A sample collected from Port O'Connor indicates that *K. brevis* is still not present in the Matagorda Bay region (9/28; TPWD). *K. brevis* was also still not found in four samples collected from the Aransas Pass and Corpus Christi Bay regions (9/28; TPWD). In southern Texas, of five samples collected along the coast of South Padre Island from the Port Mansfield Channel South Jetty to 5.8 miles north of Access 6, only the one collected from the Port Mansfield Channel South Jetty indicates that *K. brevis* is present, though in 'background' concentrations (9/29; TPWD). However, continued sampling along the coast at the UTPA Coastal Studies Lab indicates that *K. brevis* remains at 'low a' concentrations (9/29; TPWD). Two samples from the Brazos-Santiago Pass area indicate that *K. brevis* remains at 'very low a' concentrations (9/29; TPWD). One sample collected within the Brownsville Ship Channel at the San Martin Boat Ramp indicates that the *K. brevis* concentration may have decreased to 'low a' (9/29; TPWD). Reports of respiratory irritation have been received from the Galveston Beach Patrol lifeguards. Dead fish have been reported from the Intracoastal Waterway at the San Bernard River, but there are no new reports of dead fish from the San Luis Pass area.

Recent MODIS imagery (10/2, shown left) is partially obscured by clouds along the Texas coast from Pass Cavallo to the Brazos Santiago Pass area. Near where the harmful algal bloom was identified in northern Texas, a feature of elevated to high chlorophyll (2-16 $\mu\text{g/L}$) remains visible along the coast from San Luis Pass to just north of the East Matagorda Bay region, stretching from 29°5'40"N 95°4'35"W to 28°30'31"N 96°0'22"W and extending approximately 10.6 km offshore at its widest point. Continued sampling in this area is recommended. A band of elevated chlorophyll (2 to <10 $\mu\text{g/L}$) is also visible stretching along- and offshore of the Texas coast from the Sabine Pass region to South Padre Island, with patches of high chlorophyll (>10 $\mu\text{g/L}$) visible along the coast from Sabine Pass to San Luis Pass area. Elevated chlorophyll at the coast may contain *K. brevis* but could also be due to the continued resuspension of benthic chlorophyll and sediments, making it difficult to determine the extent of the blooms from

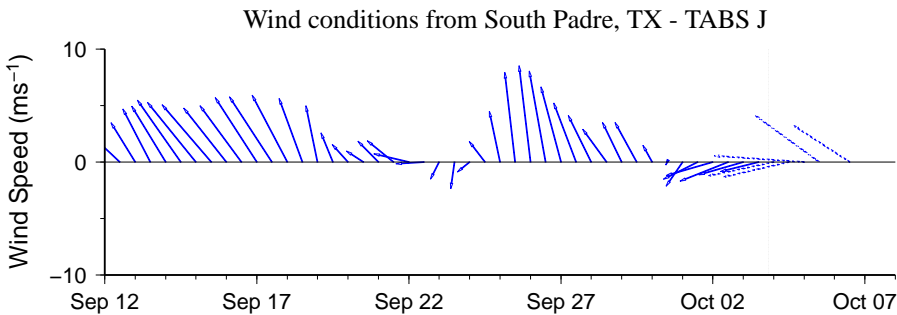
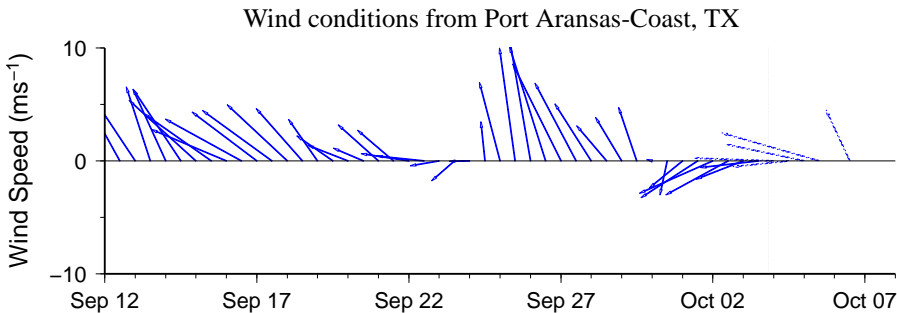
satellite imagery alone.

Forecast models indicate a maximum bloom transport of between 60-90 km south from coastal sample locations in the Freeport area from September 30 to October 6 and 50 km south along the coast from coastal sample locations in the Brazos Santiago Pass area from September 29 to October 6. Forecast models also indicate a maximum transport of 35 km south along the coast from Port Aransas from October 2 to 6.

Kavanaugh, Derner



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA’s National Weather Service (NWS).

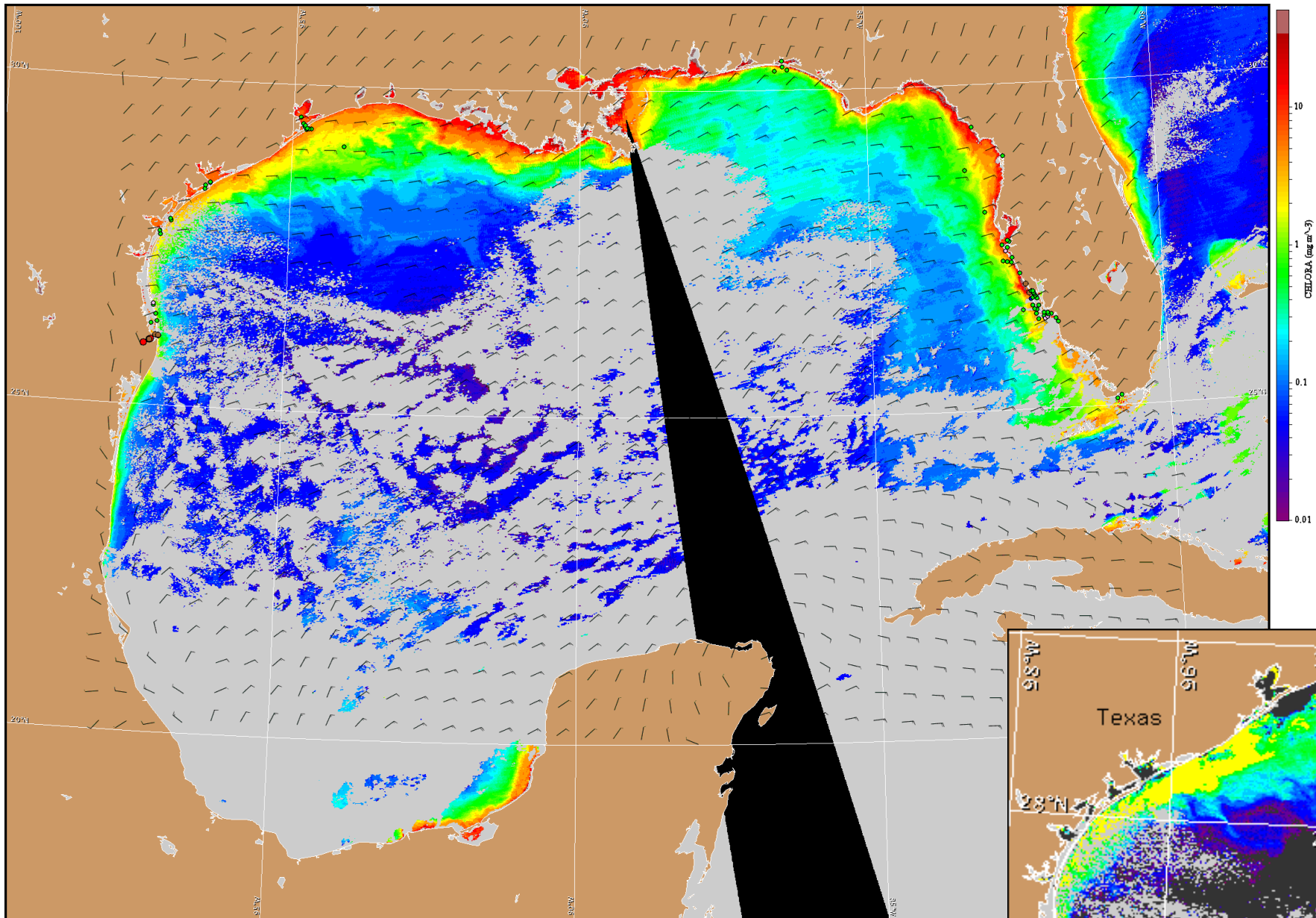


Wind Analysis

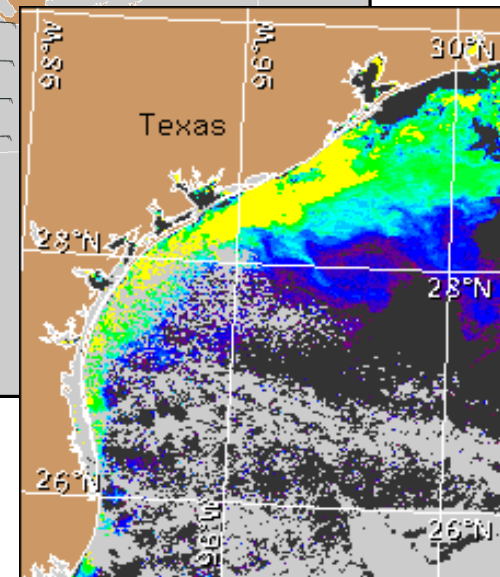
Galveston and Freeport area: East winds (10-15 kn, 5-8 m/s) today through Wednesday, becoming southeast winds (10-15 kn) Wednesday night.

South Padre: East winds (15 kn, 8 m/s) today through Wednesday.

Port Aransas: East winds (10-15 kn) today through Wednesday, becoming southeast winds (15-20 kn, 8-10 m/s) later Wednesday.



Satellite chlorophyll image and forecast winds for October 4, 2011 12Z with cell concentration sampling data from September 23 to 29 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).